

Atchison County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/22/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 20 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Atchison County economy.¹

These 20 sectors have a total direct output of approximately **\$567.8 million** and support **1,139.2 jobs** in Atchison County. Running the model for all 20 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Atchison County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	1,139.2	11.63%	\$107,564,635	18.48%	\$567,797,612	97.54%
Indirect Effect	449.0	4.58%	\$40,764,564	7.00%	\$78,356,405	13.46%
Induced Effect	453.3	4.63%	\$25,041,895	4.30%	\$49,187,820	8.45%
Total Effect	2,041.6	20.84%	\$173,371,094	29.78%	\$695,341,837	119.45%

As shown in the above table, agriculture, food, and food processing sectors support **2,041.6 jobs**, or **20.84%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$695.3 million, roughly 119.45% of the economy.**

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 20 agriculture, food, and food processing sectors is approximately **\$173.4 million**, or **29.78% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **29.78% of the total economy.**

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **392.9 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Atchison County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	392.9	\$33,217,394
Flour milling	205.0	\$326,117,962
Landscape and horticultural services	97.2	\$3,201,150
Other snack food manufacturing	96.3	\$65,092,586
All other crop farming	89.5	\$4,761,556
Wholesale trade	82.5	\$16,728,863
Grain farming	80.3	\$20,726,836
Bottled and canned soft drinks & water	51.1	\$37,650,843
Real estate	47.7	\$4,603,117
Limited-service restaurants	45.7	\$3,172,767

The flour milling sector directly contributes approximately **\$326.1 million** to the Atchison County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Flour milling	205.0	\$326,117,962
Other snack food manufacturing	96.3	\$65,092,586
Other animal food manufacturing	30.2	\$45,048,791
Bottled and canned soft drinks & water	51.1	\$37,650,843
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	392.9	\$33,217,394
Oilseed farming	28.3	\$22,299,801
Grain farming	80.3	\$20,726,836
Rail transportation	34.7	\$18,444,197
Wholesale trade	82.5	\$16,728,863
Owner-occupied dwellings	0.0	\$9,320,258

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Atchison County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	28.3	\$22,299,800.87
Grain farming	80.3	\$20,726,835.25
Vegetable and melon farming	0.8	\$122,376.61
Fruit farming	0.7	\$41,997.97
Tree nut farming	0.0	\$23.56
Greenhouse, nursery, and floriculture production	0.6	\$53,060.67
All other crop farming	89.5	\$4,761,555.67
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	392.9	\$33,217,391.97
Dairy cattle and milk production	5.9	\$1,481,496.45
Poultry and egg production	5.0	\$2,766,087.53
Animal production, except cattle and poultry and eggs	8.3	\$754,930.26
Commercial logging	1.6	\$63,436.14
Other animal food manufacturing	30.2	\$45,048,789.98
Flour milling	205.0	\$326,117,980.96
Bread and bakery product, except frozen, manufacturing	7.4	\$818,209.41
Frozen cakes and other pastries manufacturing	0.4	\$61,986.94
Other snack food manufacturing	96.3	\$65,092,582.70
Bottled and canned soft drinks & water	51.1	\$37,650,844.57
Sawmills	0.8	\$227,075.44
Veterinary services	37.1	\$3,290,013.07
Landscape and horticultural services	97.2	\$3,201,149.94

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Atchison County, the retail sector was omitted.